REMARKS

This Amendment, filed in reply to the Final Office Action dated September 18, 2008, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

1.   Summary of Final Office Action

Claims 1-20 are all the claims pending in the application.

Claims 1-5, 10 and 11-17 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bichot et al. (US 2004/0001468: hereinafter "Bichot") in view of Chuah (US 2003/0076803; hereinafter "Chuah").

Claim 5 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bichot in view of Chuah and Soderbacka et al. (US 2003/0114158; hereinafter "Soderbacka").

Claims 6, 7 and 18-20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chuah in view of Bichot.

Claims 8, and 9 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chuah in view of Bichot as applied to claim 6, and Soderbacka.

2.   Analysis of Prior Art Rejection under 35 U.S.C. § 103(a)

In rejecting **claim 1** over Bichot in view of Chuah, the Examiner maintains, *inter alia*, that while Bichot does not teach **the fourth component of the claimed interface unit** for providing data indicative of a load situation of a logical cell, but Chuah makes up for the deficiency of Bichot. Specifically, the Examiner asserts that Chuah teaches **load balancing among Node Bs**, and this teaching corresponds to providing data indicative of a load situation of a logical cell comprising a plurality of access points (APs) as recited in the claim.

To the contrary, Chuah does not teach or suggest load balancing among Node Bs, and thus, this reference cannot teach the claimed fourth element for providing data indicative of a load situation of a logical cell.

In the "Response to Arguments" section of the Final Office Action (page 15), the Examiner asserts that load-balancing between Node Bs is taught by paragraph [0030] of Chuah, which reads as follows

> [0030]   With the reconfigurable radio access system, different **load-balancing** schemes can be used to <u>distribute the load **among** the different RNCs[1] and **[Node Bs]**</u>. Such load balancing schemes can be based on prices charged for different services. One load balancing scheme could be based on QoS. In an embodiment of such a scheme, the RNCs could broadcast information to all [Node Bs] informing the [Node Bs] which RNCs do not want to accept any more connections. [Node B] (via provisioning) is provided with a list of RNCs with which it can communicate. [Node Bs] choose an RNC from the list to start with each connection request.

In the above paragraph, the Examiner simply interprets the underlined phrase "distribute the load among the different RNCs and [Node Bs]" as teaching load balancing among Node Bs. However, careful review of the Chuah reference reveals that the foregoing phrase should **not** read such that load balancing is made among Node Bs, but instead, the phrase should read such that (all) Node Bs can be connected to different RNCs based on the load situation of the RNCs. In other words, the phrase indicates that each of plural Node Bs is permitted to switch between different RNCs, but does **not** indicate that one RNC is permitted to switch between different Node Bs depending on a total load of plural Node Bs constituting a logical cell[2]. This interpretation of the phrase is evidenced in various other parts of the Chuah reference as follows.

Paragraph [0027], line 2-3 describes that one Node B is permitted to switch between different RNCs. This coupling to different RNCs is subject to resource availability information for each RNC (paragraph [0021], lines 4-5). By this load balancing, "different wireless units being serviced by the same Node Bs can use [a] different RNC." (paragraph [0029], lines 2-3). Even above paragraph [0030] cited by the Examiner indicates in the last two sentence that a

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[1] Radio Network Controllers

[2] The reason for using the plural form of the phrase "among ... [Node Bs]" is that not only one Node B but each of plural Node Bs is permitted to switch between different RNCs, which only means load balancing among RNCs but not among Node Bs.

Node B chooses an RNC based on a load situation. Thus, it is obvious from the various parts of the reference that Chuah only teaches a reconfigurable radio access network architecture that enables a Node B to get connected to different RNCs based on load situations of the RNCs. should be interpreted such that

Again, it should be noted that Chuah provides a reconfigurable radio access network architecture that enables a Node B to get connected to different RNCs in a Universal Mobile Telecommunication Network (UMTS). This reference does not teach or suggest that an RNC can be connected to different Node Bs in terms of load balancing of the Node Bs.

Therefore, Applicant respectfully submits that the Examiner assertion that Chuah teaches load balancing among Node Bs is not proper in view of the entire disclosure of Chuah, and thus, Applicant respectfully submits that the claimed interface unit would not have been obvious over Bichot in view of Chuah.

For similar reasons, **claims 6 and 10** that contain the same feature of the further component of claim 1 would not have been obvious in view of Bichot and Chuah.

Claims 2-5, 7-9 and 11-13 should be allowable at least due to their dependencies in addition to their additionally recited elements.

With regard to **claims 11-13**, the Examiner asserts that since Chuah disclosure of establishing logical or virtual connections (paragraph [0024]) teaches the claimed feature, which recites that "the [RNC] controls hand over between the logical cells, and the [RNC] does not control hand over between the plurality of physical cells". Here, the Examiner appears to view a cell covered by each router (96a and 96b) is a logical cell.

However, the Examiner's reading of the claim is overly broad without support from the reference. Even though there is established logical or virtual connections between the RNC 90 and the Node Bs 92a-92c as shown in FIG. 4 of Chuah, the RNC may control hand over between the Node Bs. There is no evidence in the disclosure of Chuah that the RNC does not control hand over between the Node Bs and only controls hand over between the routers 96a-96b.

Thus, Applicant respectfully submits that claims 11-13 are further distinguished from the cited references.

Claim 14 and 18 are different from claims 1 and 6, respectively, at least by the first component which is recited as below:

> a first component for establishing a first connection to a radio network controller (RNC) of a radio network sub-system by means of a first communication protocol used in a first network, **the first connection being established not by way of any node served in the first network and coupled to the RNC**.

By the above emphasized first connection, the claimed interface unit is characterized in that it can **mimic** a node (e.g. Node B) of a first network even though it is connected to plural APs in a second network, because it is directly coupled to an RNC **not by way of any node** served in the first network and coupled to the RNC. By contrast, the interworking unit (IWU) 18 of Bichot allegedly corresponding to the claimed interface unit is connected to the RNC 22 of the telephony network 12 by way of the node 21 served in the network 12 and coupled to the RNC 22. Thus, Bichot does not teach or suggest the claimed interface unit.

However, the Examiner simply asserts that FIG. 1 of Chuah teaches direct connection between a Node B and an RNC, and this direct connection corresponds to the claimed first connection.

It should be noted, however, what is claimed in claims 14 and 18 is a direct connection (i.e., without any intermediary) not between a Node B and an RNC but between the claimed interface unit and an RNC. Throughout the office action, the Examiner asserts that the claimed interface unit corresponds to the interworking unit (IWU) 18 of Bichot, and deficiencies of the IWU in view of the claimed interface unit are remedied by other references including Chuah.

That being said, in order for the claimed direct connection to be taught or suggested by the references, the IWU 18 should be replaced by Chuah's Node B of FIG. 1. However, one of skill in the art would not have been suggested to modify the IWU 18 and a connection scheme in FIG. 1 of Bichot using the Node B and connection scheme in FIG. 1 of Chuah while Bichot's FIG. 1 already has a Node B in the telephony network 12 using a corresponding protocol. That is, there would not have been any suggestion or motivation to use the same Node B in the position of the IWU 18, which would only render interworking of the telephony network 12 and the WLAN 10 unsatisfactory for its intended purpose. Unless it is evidenced that the network

interworking of Bichot in FIG. 1 can be achieved (i.e., two different protocols of the networks 10 and 12 can be converted reciprocally) even when the IWU 18 is directly connected to the RNC 22 (FIG. 1 of Bichot) without going through the Node B 21 (FIG. 1 of Bichot), the claimed feature would not have been rendered obvious.

As discussed above, mere incorporation of a direct connection between a Node B and an RNC of Chuah into Bichot cannot achieve the intended network interworking of the primary reference, Bichot.

In the meantime, it may be alleged that the Node B of FIG. 1 (Chuah) can be replaced by an AP and this AP can be connected to the RNC of FIG. 1 (Chuah) through an interface unit (then this interface unit can be alleged to be directly connected to the RNC). However, such network configuration, which corresponds to FIG. 6 of Chuah, is possible only for load balancing purposes, and this configuration is not suggested in terms of communication protocol conversion as recited in the claim. When it comes to network interworking using protocol conversions, one of ordinary skill in the art would have only been taught or suggested to use a Node B at the position between the IWU 18 and the RNC 22 as shown in FIG. 1, which does not correspond to the claimed network configuration.

At least under the above analysis, claims 14 and 18 would not have been obvious over the cited references.

Claims 15-17 and 19-20 should be allowable at least due to their dependencies and additionally recited elements therein.

3.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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